

## 2. CONTACT BREAKER POINT GAP AND IGNITION TIMING

### Contact Breaker Point Gap Adjustment

1. Remove the contact breaker point cover and generator cover.
2. Clean and inspect the contact breaker points. Replace if worn or badly pitted. Light pitting may be removed with an ignition point file.
3. Turn the generator rotor counterclockwise until one set of contact breaker points opens to maximum clearance.

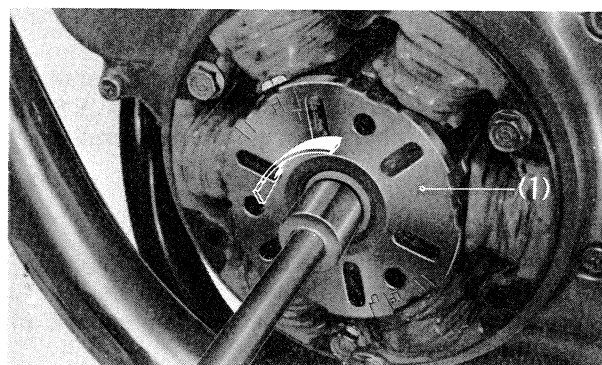


Fig. 3-4 (1) Generator rotor

4. Check contact breaker point gap with a feeler gauge. The correct gap is **0.3-0.4 mm (0.012-0.016 in.)**. If the gap is not within these limits, loosen the breaker plate locking screws and move the breaker plate to obtain the correct gap.

Tighten the locking screws and recheck the gap.

5. Turn the generator rotor counterclockwise until the other set of contact breaker points opens to maximum clearance. Check gap and adjust if necessary.
6. Lubricate the breaker point cam with a thin film of grease.

### NOTE:

Contact breaker point gap adjustment will affect ignition timing. Ignition timing must be checked after contact breaker point gap adjustment.

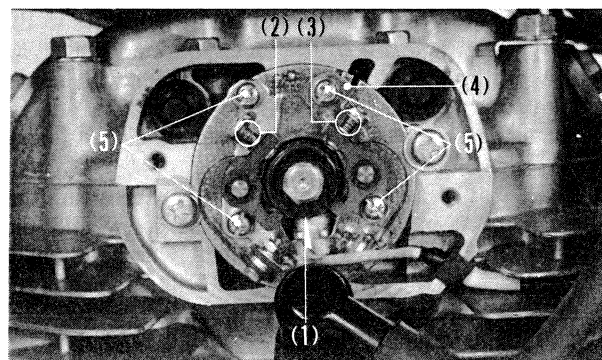


Fig. 3-5 (1) Point cam (5) Contact breaker plate locking screw  
(2) L/H contact breaker point  
(3) R/H contact breaker point  
(4) Contact breaker plates

### Ignition Timing

Check ignition timing upon completion of the contact breaker point gap adjustment.

1. Turn the generator rotor counterclockwise until the "LF" timing mark on the rotor aligns with the index mark on the generator stator.
- If left cylinder ignition timing is correct, the left breaker points will just begin to open as these marks align.

|                                  |           |
|----------------------------------|-----------|
| Start of advance (at crankshaft) | 1,800 rpm |
| Full advance (at crankshaft)     | 3,400 rpm |
| Advance angle                    | 0-12.5    |

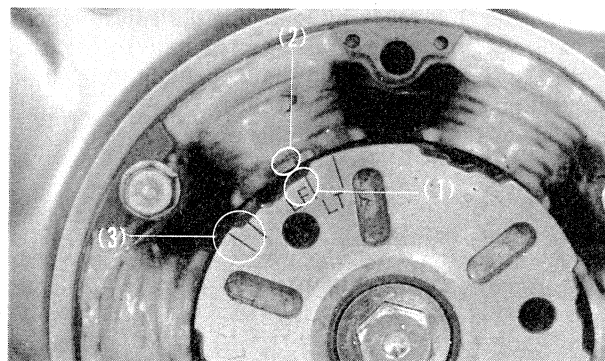


Fig. 3-6 (1) "LF" mark  
(2) Index mark on stator  
(3) Index marks at full advance

### NOTE:

Static ignition timing may be checked with a 12V-3W continuity light. When connected as illustrated in Fig. 3-7, with the main switch in the ON position, the light will come on as the breaker points open.

Static timing is relatively accurate, but for best results a stroboscopic timing light should be used to check ignition timing in both retarded and full advanced positions.

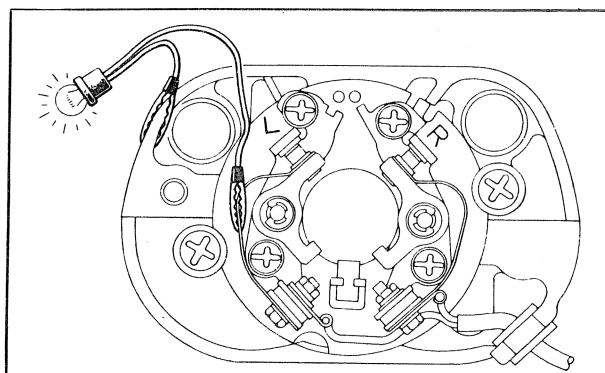


Fig. 3-7

2. If left cylinder ignition timing is incorrect, loosen the base plate locking screws and rotate the base plate to obtain correct timing. Rotate the base plate clockwise to advance timing, or counterclockwise to retard timing. Tighten the base plate locking screws and recheck left breaker point gap.
3. Turn the generator rotor counterclockwise until the "F" timing mark on the rotor aligns with the index mark on the generator stator. If right cylinder ignition timing is correct, the right breaker points will just begin to open as these marks align.
4. If right cylinder timing is incorrect, loosen the right breaker plate locking screws and increase or decrease point gap to obtain correct timing. Do not loosen the base plate locking screws. Increasing the point gap advances ignition timing. Decreasing the point gap retards ignition timing.

**NOTE:**

Ignition point gap must remain within limits of 0.3-0.4 mm (0.012-0.016 in.) after ignition timing has been set. If correct timing results in a point gap which is outside these limits, increase or decrease both point gaps equally to bring gaps within limits, then retime by rotating base plate.

e.g. If left point gap is set at 0.35 mm (0.014 in.) and right point gap produces correct timing at 0.42 mm (0.017 in.), and rotate base plate to time ignition.

If both point gaps cannot be adjusted within limits, replace point assemblies.

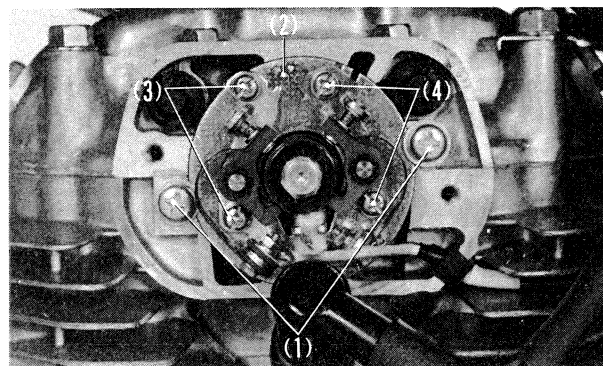


Fig. 3-8 (1) Base plate locking screws  
(2) Base plate  
(3) L/H contact breaker plate locking screws  
(4) R/H contact breaker plate locking screws

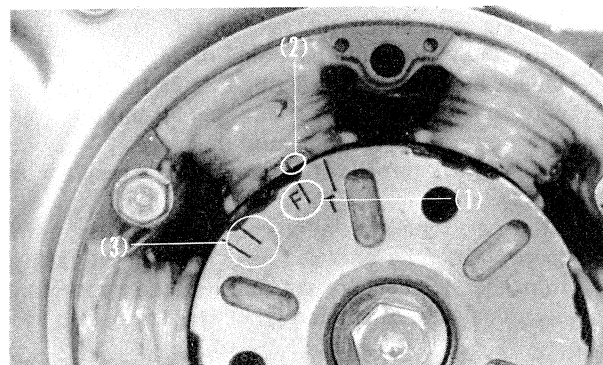


Fig. 3-9 (1) "F" mark  
(2) Index mark on stator  
(3) Index mark at full advance

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